Before the

Federal Communications Commission

Washington, D.C. 20554

In re Petition of:	)	
	)	
Remington Arms Company, Inc.	)	
	)	ET Docket No. 05-183
For Waiver of Sections 15.245, 15.247(b) and 15.247(e) of the Rules and Regulations	)	

TO: Marlene H. Dorch, Secretary

For transmission to Chief,
Office of Engineering and Technology

REPLY COMMENTS

1. Remington Arms Company, Law Enforcement Technologies Division, by its attorneys, pursuant to Section 1.45 of the Commission's rules, hereby respectfully submits reply comments to those entered in this docket by Cisco Systems Inc. ("Cisco") and Cellnet Technology. Inc. ("Cellnet").

THE CISCO COMMENTS

2. Cisco raises three objections to the requested waiver:
   (i) Remington has not met the burden of sustaining a waiver, citing cases relying on *WAIT Radio*, and demonstrating the public interest will be served without undermining the policy of the rule.[1] There is no net benefit to support a public interest finding.
   (ii) Remington does not explain why it is using the 2.4 GHz band to transmit video and audio signals.
   (iii) Remington has not made a commitment to ensure that the Eyeball R1 will be purchased and used by bona fide safety organizations. Cisco indulges in the assumption that the R1 will become a consumer electronics product.

Not one of these objections is valid.

[1] Petition for Waiver of the Part 15 UWB Regulations Filed by the Multi-band OFDM Alliance Special Interest Group, ET Docket No. 04-352, released March 11, 2005, citing WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir. 1969); Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1164 (D.C. Cir 1990).

Sustaining The Waiver

3. WAIT Radio is the seminal case establishing the need for the Commission to entertain waivers of its rules in appropriate circumstances. The Commission must seek out the public interest even where that interest may lie in granting a waiver of its rules in particular, individualized cases.[2] Waivers provide a ". . . limited safety valve [that] permits a more rigorous adherence to an effective regulation." [3]

4. Remington has submitted a plethora of support for the public interest benefits of the Remington Eyeball R1. Attached to the petition and to Remington's comments filed June 6 are the comments of law enforcement officials confirming that they would highly value the Eyeball R1 for special operations and S.W.A.T. situations. Discussions with police and sheriff departments confirm this assessment. Law enforcement officers place their own lives in harms way to provide security to our citizenry. We should be prepared to reduce their risks whenever possible. It is difficult to imagine a higher public interest than reducing that risk and the making it easier to protect the lives of crime victims, even where it may involve a momentary and minor level of interference to other ordinary personal or business uses.

5. However, as Remington has said, the area of potential interference is quite limited. Taking an extremely conservative approach, Remington suggested in its petition that the area of interference would likely be less than a city block.[4] Remington's own in-house tests indicate that, in realistic circumstances, interference is far less than that, more like 30 or 40 feet on channel and not at all on adjacent channels. Remington is in the process of conducting a test to provide a quantitative characterization of the interference created by the Eyeball R1 to a co-channel 802.11 LAN at various distances. The tests should be ready for submission by June 30 and Remington has every confidence that they will show that the potential interference is not a serious concern. In most situations where the Eyeball would be deployed, people should not be in the vicinity using their wireless LANs anyway and the area will often be cordoned off from the public. Accordingly, Remington did not believe that it was necessary to provide such a study, but in light of the comments of Cisco and Cellnet, it has decided to commission and submit the study so that such doubts about the balance of public interest considerations can be settled.

6. Cisco notes further that the unlicensed bands are in use today for new mobile LAN applications by the same public safety organizations that would use the Eyeball R1. However, the area of deployment and utility of the mobile LANs would in most cases still be far away from the potential interference of the tactical environment in which a deployed Eyeball R1 is in use. The squad car and its LAN would generally be outside of buildings and in the street. The Eyeball R1 is designed to be used by tactical teams for indoor and outdoor applications, usually separated from the street by at least 30 to 50 feet. Cisco recites that:

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[2] WAIT Radio at 1157

[3] Id at 1159

[4] This is the so-called "admission" by Remington that the Eyeball will interfere with existing users in the band. As stated above, Remington's intent in making any such statement was to show how such interference was not only miniscule but also secondary to the higher public interest of reducing risk to law enforcement officers and saving their lives as well as those of the victims.

> In communities which have deployed 2.4 GHz systems in support of public safety, an officer sitting in his or her 802.11-equipped car and using a 802.11- equipped laptop can, among other things, file reports, access data, transmit video back to a command center, and have email functionality, as well.

Surely, officers engaged in the vicinity of a deployed Eyeball R1 will be too busy and preoccupied to file reports and send e-mail. Those functions would seem to come after the emergency is over and the situation has returned to normal. Even were that not the case and reports were being created and transmitted during the operation, saving lives seems important enough to justify a delay in completing those LAN activities.

7. It is also noteworthy that Cisco's examples of public safety organizations deploying 802.11 WLANs at 2.4 GHz are overwhelmingly urban and suburban. This makes the population numbers look impressive, even overwhelming. However, it is inconceivable that a situation would exist in which Eyeballs were deployed on a scale that would affect anywhere near that large a population, even within the density of an urban environment. Moreover, a great deal of the interest already expressed in the Eyeball comes from rural and semi rural police and sheriff departments. Even were there a significant consequence in cities, which there is not, rural and semi rural law enforcement should not be denied this potentially lifesaving and affordable tool.

8. Given the potential for enhanced law enforcement and lifesaving operations, Remington urges the Commission to recognize that such potential, miniscule interference, even if it were to occur, is more than an acceptable degradation and the Eyeball R1 still warrants a conclusion that the requested waiver would serve the public interest without undermining the policy that sections 15.247 and 15.249 were intended to serve. The public interest burden for the waiver has been met.

THE 2.4 GHz Band

9. The 2.4 GHz band was selected because it is available and immediately deployable at a reasonable cost. Law enforcement officers have indicated to Remington that there is an immediate need for the Eyeball R1, that it is more useful and flexible than any existing device they have available and that, at about $4,800 per unit, it is affordable to most public safety offices with their existing budget. The Eyeball R1 was developed with the 2.4 GHz band by an Israeli technical team for the Israeli Ministry of Defense in terrorist situations and was adaptable for U.S. deployment with a minimum of reengineering and cost. The component technology is immediately available from existing vendors. Developing the product in a new band would have prohibitively increased the cost beyond existing budgets and introduced a significant delay in deployment. For much the same reason, we speculate, Cisco has chosen to install 802.11 into police vehicles for mobile wireless LANs rather than develop a more costly and delayed application in the public safety frequency pool or another new frequency band. Finally, the 4.9 GHz band, even were technology for it immediately available at affordable cost, would probably provide less effective propagation in the tactical environment and consequently the system would not perform as well.

The Proposed Bona Fide User Limitation

10. Cisco questions Remington's intent by suggesting that there is nothing in the waiver request to restrict the use of the Eyeball R1 to public safety users. It complains that "[O]nce the device is approved, Remington can sell the device to anyone, raising the prospect of widespread interference to existing devices." The answer lies in the belief by Remington that the cost of the device, even after utilizing available technology, is still too expensive for ordinary consumer application and that alternative, far less expensive devices such as baby room monitors, are available already for consumer level applications. Remington never believed that a general mass market exists for the Eyeball R1 and that even if it did, attempting to sell into that market and making it widely available would unacceptably devalue the R1 to the public safety community. Therefore, it simply did not seem necessary to include such a restriction in the original application. Remington's charter for its newly formed Remington Technologies division provides that it was created for to provide advanced "non-lethal" safety and security products to the law enforcement and military communities in operational situations.[5] The division has no consumer mission, which would be antithetical to its true mission.

11. Subsequent discussions with the Fixed Wireless Communications Committee convinced Remington that to ease the concerns of other spectrum users, it is desirable to impose a restriction that reflects its marketing plans anyway. Therefore, in initial comments filed June 6, Remington proposed that the waiver grant include language restricting the use of the Eyeball R1 to permitted users. For this purpose, permitted users would be only those eligible users of the Public Safety Pool under Section 90.20 of the Commission's rules,[6] federal government agencies that would be eligible users were they state government agencies, and state licensed security and investigative service providers.[7] We believe that such a restricted pool of users is consistent with Remington's intentions for the Eyeball R1 and would ensure that the public interest would be served with little or no disruption to other users of the unlicensed bands and therefore not undermining the policies embodied in Sections 15.247 and 15.249 of the Commission's rules.

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[5] Learn more about Remington Technologies Division at www.remingtontd.com.

[6] 47 CFR §90.20

7 The majority of States and the District of Colombia require private detectives and investigators to be licensed. Web site of the Bureau of Labor Statistics http://bls.gov/oco/ocos157.htm#training, last visited on June 6, 2005. Most States require that guards be licensed. To be licensed as a guard, individuals must usually be at least 18 years old, pass a background check, and complete classroom training in such subjects as property rights, emergency procedures, and detention of suspected criminals. Drug testing often is required, and may be random and ongoing. Web site of the Bureau of Labor Statistics, http://www.bls.gov/oco/ocos159.htm#training, last visited on June 6, 2005.

AN OBSERVATION

12. It seems puzzling for any controversy to have been caused by the instant waiver request. The essence of Remington's request is for a waiver of the emission type (not the power limit or the bandwidth requirements) in order to permit use of a wideband analog signal rather than a wideband digital signal. If the Eyeball R1 emitted a digital signal of the same bandwidth and power as requested under the waiver, the device would meet the existing Part 15 rules. Remington believes that the Eyeball R1 will not create more interference in the 2.4 GHz band than is created by systems permissible under the current rules; Remington is not aware of any evidence to the contrary. Given the specialized nature of the application and the price of the unit, total sales of the unit will be in relatively small numbers compared to consumer electronics. The devices will sit on the shelf or in S.W.A.T. team vans most of the time—being used at times when such incidents occur. Computer manufacturers and retailers, such as Dell or Staples sell more devices that emit in the 2.4 GHz band in a day (or a busy hour) than the total number of Eyeball R1s units to be sold.[8] That anyone would believe that the Eyeball R1 will contribute in any significant degree to so saturated an environment, or hypothesize "the prospect of widespread interference to existing devices" from this one limited and specialized source is simply not credible.

CELLNET CONCERNS

13. Cellnet's concerns seem to boil down to a generalized concern that the unlicensed bands not be cluttered with unnecessary waivers that further dirty the band. It should be noted that Cellnet is a user of the 902-928 MHz, a region where Remington's Eyeball R1 will be in compliance with the rules and needs no waiver. Moreover, Remington believes its other arguments demonstrate that Cellnet's general theoretical and policy concern for all unlicensed bands is misplaced with respect to the 2.4 GHz band as proposed for use in this waiver request.

CONCLUSION

14. By these comments, Remington renews its request that the Commission provide a waiver of the emission limit in §15.249(a) and emission type in 47 CFR 15.247(b)(3) and waiver of §15.247(e) to permit the manufacture and sale of the Eyeball R1 with a one watt power limit. The waiver should be limited to allow use of the Remington Eyeball R1 only by users eligible under Section 90.20 of the Commissions rules for the Public Safety Pool, state licensed security

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[8] Gartner states that Dell sold 4.919 million computers in the U.S. in Q3 2004. This works out to 2.250 computers per hour (assumes 91 days in the quarter, 24 hours/day).
http://www.gartner.com/press_releases/asset_112218_11.html Consumer Electronics Daily reports that laptops represents over 53% of these sales, on reason being the popularity of Wi-Fi, as 95% of notebooks now come with wireless connectivity built in, compared with 20% this time last year. CONSUMER ELECTRONICS DAILY, Warren Publishing, Inc. June 7, 2005. More than 200 million PCs will be shipped this year, with notebook computers creating the most growth. According to Paul Otellini, Intel's fifth CEO, Intel's Centrino chip packet is designed for the wireless PC market, including a microprocessor and chipset bundle with a Wi-Fi chip and that is driving notebook sales. Datamonitor NewsWire, May 19, 2005. Virtually 100% of laptops sold in 2007 will have built-in WiFi, according to Mooly Eden, vice president of Intel's Mobility Group, Network Computing, December 16, 2004

and investigative service providers and federal government agencies that would be eligible users were they state government agencies.

15. Section 1.925 of the Commission's rules will be served by allowing those charged by the American public with securing our safety access to this important new technology that can save lives and provide an extra measure of safety and effectiveness to their task. This waiver will serve the higher public interest in saving life and combating terrorism, a significant underlying purpose of the Commission's mandate in Section 1 of the Communications Act of 1934.

Respectfully submitted,

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Certificate of Service

I, Gregg P. Skall, an attorney with the law firm of Womble Carlyle Sandridge & Rice, PLLC, do hereby certify that a true and correct copy of the foregoing Reply Comments was served by U.S. mail, first class, postage-prepaid on the 21st day of June, 2005, on the following individuals:

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